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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/564,381	01/12/2006	Mark Thomas Johnson	NL030842	8990

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EXAMINER	
SITTA, GRANT	
ART UNIT	PAPER NUMBER
2629	
MAIL DATE	DELIVERY MODE
10/03/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/564,381	JOHNSON ET AL.	
	Examiner	Art Unit	
	GRANT D. SITTA	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 January 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 January 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *1/12/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 1, 2, 4, 8, and 12 are objected to because of the following informalities: Examiner notes numerous grammatical errors throughout the claims. Appropriate correction is required where appropriate. (i.e. claim 1 "is arranged to intentionally avoid to update a second…"; claim 2 “of said second subgroup of pixels (4) is most prevalent greyscale of the display panel”; claim 10 “maximise”; claims 4, 8, and 12 “analyser”

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 2 and 3 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Examiner notes that Applicant has not disclosed how the “most prevalent grey-scale” is determined.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Regarding claim 9, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d). Examiner notes that “paper-like" also renders that claim infinite because it is not clear what characteristics are meant by “paper-like". (i.e. flexibility, thinness, or color). For purpose of Examination Examiner is going to assume Applicant intended a flat display (i.e. e-book).

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Gates (6,531,997) hereinafter, Gates.

8. In regards to claim 1, Gates teaches an electrophoretic display panel (1) (col. 2, lines 13-45) , for displaying an image corresponding to image information (col. 2, lines 13-45), comprising: a plurality of pixels (4) (fig. 4 squares are elements of a pixel), each containing an amount of an electrophoretic material (col. 20, lines 52-67 and fig. 3a-3c

(50)), an electrode arrangement (8,9) associated with each pixel (abstract and fig. 9A and 9B (104)))(4) for receiving a potential difference as defined by an update drive waveform (col. 21, lines 1-67)(12); and pixel drive means (10)(col. 30, lines 53-67), for controlling said update drive waveform (12) of each pixel (4); characterized in that said drive means (10), at least in a portion of the display(col. 30, lines 53-67), is arranged to update a first subgroup of pixels (4) (col. 21, lines 1-67) which, is arranged to display a greyscale in a current image frame (13) (col. 21, lines 1-67) which differs from the greyscale displayed in a previous image frame (14) (col. 21, lines 1-67)(12), and hence said drive means is arranged to intentionally avoid to update a second subgroup of pixels (4) (col. 21, lines 1-67)(12).

9. In regards to claim 2, Gates teaches an electrophoretic display panel as in claim 1, wherein the greyscale to be displayed by each of said pixels (4) of said second subgroup of pixels (4) is most prevalent greyscale of the display panel (col. 20, lines 55-57).

10. In regards to claim 3, Gates teaches an electrophoretic display panel as in claim 1, wherein the greyscale to be displayed by each of said pixels (4) of said second subgroup of pixels (4) is essentially white (fig. 4a and 4b white squares and col. 20, lines 55-57).

11. In regards to claim 4, Gates teaches an eletrophoretic display panel as in claim 1, wherein the display panel further comprises an image information analyser (11) arranged to analyse the image information for a current image frame (13) to be displayed by the display panel with the image information of a previous image frame (14), the image information analyser (11) being arranged to control said pixel drive means (10) so as to, at least in a portion of the display, only update a subgroup of pixels (4) which, as analysed by image information analyser (11) is arranged to display a greyscale in the current image frame (13) which differs from the greyscale displayed in the previous image frame (14) (fig. 4a and 4b col. 20-22).

12. In regards to claim 5, Gates teaches an electrophoretic display panel as in claim 1, wherein the pixels (4) is arranged in a matrix like fashion wherein the pixels are arranged along substantially straight addressing lines and along substantially straight data lines being substantially perpendicular to the addressing lines (fig. 4a and 4b Examiner notes the matrix formation of the grid to update pixels).

13. In regards to claim 6, Gates teaches an electrophoretic display panel as in claim 1, wherein the update drive waveform (12) is provided with reset portion between each data portion, during which the display panel is not addressed (fig. 9B 0v) and col. 26-27, lines 40-8). Examiner notes that 0 v is the white pixel (“white clearing frame”) or the reset period col. 27, lines 9-26)

14. In regards to claim 7, Gates teaches an electrophoretic display panel as in claim 6, wherein, during said reset portion all data lines are reset to a voltage of 0 V (fig. 9B 0v) and col. 26-27, lines 40-8). Examiner notes that 0 v is the white pixel or the reset period.

15. In regards to claim 8, Gates teaches an electrophoretic display panel as in claim 5, wherein said pixel drive means (10) comprises a line addressing device, for commonly addressing an entire addressing line of pixels, wherein the image information analyser (11) is arranged to control said pixel drive means (10) so as to only address (12) a subgroup of addressing lines comprising a pixel which, as anlalysed by the image information analyser (11) is arranged to display a greyscale in the current image frame (13) which differs form the greyscale displayed in the previous image frame (14) (col. 30-31, lines 53-30 and col. 20, lines 53-67).

16. In regards to clam 9, Gates teaches an electrophoretic display panel as in claim 1 for use in a paper-like display, such as an electronic book, on which rows of characters to form a text to be displayed are arranged to be displayed on a substantially constant background (col. 29, lines 39-43).

17. In regards to claim 10, Gates teaches an electrophoretic display panel as in claim 9, wherein the panel is programmed to display said rows of characters in a letter font being designed to maximise the number of addressing lines between each rows of characters for which the greyscale to be displayed will be constant for subsequent image frames (fig. 4a and 4b (200) and col. lines 53-67).

18. In regards to claim 11, Gates teaches an eletrophoretic display panel as in claim 1, wherein said pixel drive means (10) is connected with a look-up table, in which all possible update drive waveforms are stored (col. 31, lines 5-30).

19. In regards to claim 12, Gates teaches an electrophoretic display panel as in claim 11, wherein said image information analyser (11) is arranged to upload to said pixel drive means (10) only the update drive waveforms for the pixels of data lines which are to be addressed during the current frame (col. 20-21, lines 55-40).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GRANT D. SITTA whose telephone number is (571)270-1542. The examiner can normally be reached on M-F 9-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on 571-272-3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sumati Lefkowitz/
Supervisory Patent Examiner, Art Unit 2629

/GDS/
September 25, 2008